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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/725,197	12/01/2003	Xuejun Wang	324212003700	9816

76102 7590 02/01/2010

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EXAMINER	
AHN, SANGWOO	
ART UNIT	PAPER NUMBER
2168	
MAIL DATE	DELIVERY MODE
02/01/2010	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/725,197	WANG ET AL.	
	Examiner	Art Unit	
	SANGWOO AHN	2168	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 November 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1, 5 - 21, 25 – 31 and 35 - 59* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1, 5 - 21, 25 – 31 and 35 - 59* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *20091016*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

Claims 1, 5 - 21, 25 – 31 and 35 - 59 are pending in this application.

Claims 1, 21 and 31 have been amended.

Claims 2 – 4, 22 – 24 and 32 – 34 have been canceled.

Response to Arguments

Applicant's arguments filed on 11/3/2009 have been fully considered but they are not persuasive.

With regards to the independent claims, Applicant mainly argued that Dunham fails to disclose or suggest "**candidate search terms** related to said first search term … wherein said plurality of candidate search terms comprise a plurality of potential alternative search terms" citing paragraph 17 of the specification where it states that "the search is typically triggered by the users who will input one or more search terms, e.g., 'laptop computer', 'DVD', 'gas grill' and so on."

It appears that the Applicant is trying to distinguish the present invention's candidate search terms and the prior art's search results, without bringing in necessary limitations to clearly distinguish them. The terms in the search results (hypertexts) can be interpreted as the candidate search terms, as those terms can be identified by the user and inputted to the search engine to generate another set of search results. Therefore, present invention's features of *1. dynamically generating a plurality of*

candidate search terms, 2. candidate search terms comprising a plurality of alternative search terms, and 3. said potential alternative search terms being used to generate a second set of search results in response to a selection by the user of at least one of the potential alternative search terms can read on the prior art's feature of generating a plurality of search results containing potential search terms, since the user can review the search results, identify a potential search term, and input the identified search term into the search engine iteratively, thereby generating a new set of search results (paragraphs 31 and 35, et seq.).

In order to sufficiently distinguish the present invention's "candidate search terms" from the prior art's generation of search results, Examiner respectfully advises the Applicant to incorporate additional limitations to render the claim unambiguous. For example, limitations such as "wherein the user selects, by using a user input device, at least one of the plurality of potential alternative search terms through the computer's graphical user interface, and automatically generating a second set of search results in response to the user's selection of the search term."

Examiner would also like to note that the *method of generating alternative search terms that are selectable by a user using an input device through a graphical user interface* had been prevalent in the data processing art prior to the date of the present invention. For example, see U.S. Patent Number 6,947,930 issued to Anick et al., Figure 6.

Applicant also argued that Dunham fails to disclose or suggest "wherein said plurality of candidate search terms comprise a plurality of potential alternative search

terms, and are at least **organized in accordance with brands**." Examiner respectfully traverses the argument based on the previously cited paragraph 54 lines 2 - 3 (the listings can be organized in any way as to optimize the revenue generated for each search) and paragraph 64 (the order of the listings can be manipulated in order to optimize the revenue generated by each search), et seq.. The cited sections suggest that the order of the listings can be manipulated in various ways as to maximize the profit: this can include organizing the listings in accordance with brands, prices, popularity, etc.

Examiner would also like to note that the method of organizing search results in accordance with different categories had been prevalent in the data processing art prior to the date of the present invention. For example, see U.S. Patent Number 6,704,727 issued to Kravets, Figures 6 – 11.

For the foregoing reasons, 35 USC 102 rejections have been sustained.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 5 – 8, 11 – 12, 13 – 14, 21, 25 – 28, 31, 35 – 38, 41 – 44 and 51 – 59 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Publication Number 2003/0216930 issued to Carl A. Dunham et al. (hereinafter "Dunham").

Regarding claim 1, Dunham discloses,

A computer-implemented method for searching, said method comprising:

storing sales information related to a plurality of search terms, wherein the sales information includes an accumulation of a plurality of purchase transactions of a plurality of users (paragraph 17 line 14: activity information is processed through feedback mechanism that provides … actions and charge-back rates, paragraph 46 lines 11 – 12: percentage of total sale or per-product commission or bounty, paragraph 53 lines 3 – 6: storage database stores … sales data, paragraph 67 line 5: return action data to the search engine for each action, whether a consummated sale or other action, paragraph 69 lines 1 – 4: if the user purchase products or services or takes any other payable action, the transaction information is transmitted to the search engine, et seq.)

receiving a first search term from a user (paragraph 15 lines 1 – 2: accept input such as search terms, et seq.);

generating a first set of search results in response to receiving the first search term from the user (paragraph 35, et seq.); and

dynamically generating a plurality of candidate search terms related to said first search term (paragraph 15 lines 9 – 12: upon retrieval of relevant information, organizes that data related to the search terms into a search results list, et seq.) in accordance with relevancy scores calculated (paragraph 17 lines 2 – 3: calculates a probability for

each relevant listing, et seq.) based in part on the sales information (paragraph 17 line 14: activity information is processed through feedback mechanism that provides … actions and charge-back rates, paragraph 46 lines 11 – 12: percentage of total sale or per-product commission or bounty, paragraph 53 lines 3 – 6: storage database stores … sales data, paragraph 67 line 5: return action data to the search engine for each action, whether a consummated sale or other action, paragraph 69 lines 1 – 4: if the user purchase products or services or takes any other payable action, the transaction information is transmitted to the search engine, et seq.) and click information (paragraph 17 line 13: activity information is processed through the feedback mechanism that provides … click-through rates, paragraph 56 line 4: pattern of clicks, et seq.) related to the first search term for providing to the user (paragraph 67 lines 13 – 15: the search engine can determine a more effective search results list to present to the user based upon the past behavior of that specific user, et seq.),

wherein said plurality of candidate search terms comprise a plurality of potential alternative search terms, and are at least organized in accordance with brands, wherein the brands related to the first search term are determined based upon the sales information (paragraph 54 lines 2 – 3: determines the placement of listings in such a way as to optimize the revenue generated for each query, paragraph 64: manipulates the listings shown and their positions in order to optimize the revenue generated by each query, et seq.), wherein said plurality of potential alternative search terms are for generating a second set of search results in response to a selection, by

the user, of at least one of said plurality of potential alternative search terms (See Response to Arguments section for detailed explanation); and

wherein at least one user of said plurality of users does not have a user profile.

Claims 21 and 31 are rejected based on the same rationale above.

Regarding claim 5 – 6, Dunham discloses,

said plurality of search terms are organized in accordance with products, or related searches (Figure 3 elements 52 and 54, et seq.).

Claims 25 – 26 and 35 – 36 are rejected based on the same rationale above.

Regarding claim 7, Dunham discloses,

said plurality of candidate search terms are presented as links to other destinations (paragraph 35 line 16, et seq.).

Claims 27 and 37 are rejected based on the same rationale above.

Regarding claim 8, Dunham discloses,

said candidate search terms are generated off-line (paragraphs 29 – 33, et seq.).

Claims 28 and 38 are rejected based on the same rationale above.

Regarding claims 11 – 12, Dunham discloses,

said candidate search terms are generated in accordance with a span that define a number of word unit, and said span is greater than one word unit (paragraph 35 lines 9 – 11, et seq.).

Claims 41 – 42 are rejected based on the same rationale above.

Regarding claims 13 – 14, Dunham discloses,

said candidate search terms are refined in accordance with an inflection distance and said inflection distance is a measure of closeness between two search terms (paragraph 35 lines 9 – 11, paragraphs 47 – 48, et seq.).

Claims 43 – 44 are rejected based on the same rationale above.

Regarding claims 51 – 53, Dunham discloses,

click information includes purchase data based upon purchase behavior of a plurality of users (paragraph 17 line 13: activity information is processed through the feedback mechanism that provides … click-through rates, paragraph 56 line 4: pattern of clicks, et seq.).

Claims 54 – 59 are rejected based on the same rationale discussed above.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 9 – 10, 29 – 30 and 39 – 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dunham in view of U.S. Publication Number 2003/0078915 issued to Surajit Chaudhuri et al. (hereinafter "Chaudhuri").

Regarding claims 9 – 10, Dunham discloses the method of claim 1.

Dunham does not explicitly disclose search terms organized in a hash table.

However, Chaudhuri discloses keywords organized in a hash table (paragraph 37, et seq.). At the time of the present invention, it would have been obvious to a person of ordinary skill in the data processing art to modify Dunham's method of suggesting search terms to incorporate Chaudhuri's method of using a hash table for the search terms, thus saving the storage space and maximizing the speed of the look-up process (paragraph 34, et seq.).

Claims 29 – 30 and 39 – 40 are rejected based on the same rationale above.

Claims 19 - 20 and 49 - 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dunham in view of U.S. Patent Number 5,987,460 issued to Niwa et al. (hereinafter "Niwa").

Regarding claims 19 – 20, Dunham discloses the method of claim 1.

Dunham fails to disclose normalizing said plurality of candidate search terms in accordance with occurrence time or display position of said plurality of candidate search terms.

However, Niwa discloses normalizing said plurality of candidate search terms in accordance with occurrence time or display position of said plurality of candidate search terms (column 12 line 52 – column 13 line 7, et seq.). At time of the present invention, it would have been obvious to a person of ordinary skill in the data processing art to modify Dunham's method of suggesting search results to incorporate Niwa's method of normalization, thus enabling display of search results characteristically appearing in a

document group in a graph or list form, thereby saving user's time to locate the desired result.

Claims 49 – 50 are rejected based on the same rationale above.

Claims 15 – 18 and 45 – 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dunham in view of U.S. Patent Number 6,701,314 issued to Joan Evelyn Conover et al. (hereinafter "Conover").

Regarding claims 15 – 18, Dunham discloses the method of claim 15.

Dunham does not explicitly disclose different types of dictionary (such as brand, artist, etc.), and wherein if said search term is deemed to be a particular type (such as brand), then at least one of said plurality of candidate search terms is presented as product of said type.

However, Conover discloses different types of classification systems/hierarchies (column 1 line 67, column 5 lines 10 – 17: equivalent to different types of dictionaries in the present application), and wherein if sad search term is deemed to be a particular type, then at least one of said plurality of candidate search terms is presented as a product of said type (column 1 line 67, column 5 lines 20 – 45: keywords are mapped against a specific weighted domain ontology, which is a classification system/hierarchy. Therefore, if a keyword is deemed to belong in a particular classification system/hierarchy, that keyword is presented as a product of that classification system/hierarchy). At the time of the present invention, it would have been obvious to a person of ordinary skill in the data processing art to modify Dunham's method of

suggesting search terms to incorporate Conover's classifying keywords against classification systems/hierarchies, thus increasing operational speed and accuracy of the search term classifying process.

Claims 45 – 48 are rejected based on the same rationale above.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SANGWOO AHN whose telephone number is (571)272-5626. The examiner can normally be reached on M-F 10-6.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Tim T. Vo/
Supervisory Patent Examiner, Art Unit 2168

1/22/2010
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Examiner, Art Unit 2168